

Claims

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1. An electric machine construction, comprising
a stator space (9) defined by a shell (8) and end portions
(6) at both ends of the shell (8),
stator means and rotor means (20) having a first end and a
second end disposed within said stator space (9),
c h a r a c t e r i z e d by comprising
at least one cooling medium inlet opening (14,34) in the
shell (8) and positioned intermediate the ends of the rotor
means (20),
means (13) at the vicinity of both end portions (6) of the
stator space (9) for providing suction for drawing cooling
medium into said stator space (9),
wherein the arrangement is such that the cooling medium is
drawn by the suction into the stator space (9) through said at
least one inlet opening (14,34) and that the cooling medium is
removed at the vicinity of both end portions (6) of the stator
space (9).
2. An electric machine construction according to claim 1,
c h a r a c t e r i z e d in that the conduction of the
cooling medium into the stator space (9), circulation within
the stator space and removal (12) from the stator space is
arranged such that it occurs symmetrically relative to the
electric machine construction (10).
3. An electric machine construction according to claim 1 or
2, c h a r a c t e r i z e d in that said end portions (6) are
arranged further to form attachment means (5) of the electric
machine construction for the attachment thereof to a mounting
bed.
4. An electric machine construction according to any of the
preceding claims, c h a r a c t e r i z e d in that the both
ends of the electric machine construction (10) are provided
with power output shafts (4).

24.11.1998

The Swedish Patent Office
PCT International Application

PCT/ FI 97 / 00 605

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5. An electric machine construction according to any of the preceding claims, characterized in that the apparatus (30) to be driven by the electric machine (10) is attached (32) directly to the end portion (6) of the electric machine construction, whereby the attachment means (5) integrated in the end portion (6) of the machine construction (10) form the means for attaching the integrated apparatus assembly to a bed.
6. An electric machine construction according to any of the preceding claims, characterized in that it is further provided with blower means so as to intensify the cooling medium flow.
7. An electric machine construction according to any of the preceding claims, characterized in that it further comprises heat exchanger means (24) provided within a space (23) between the outer surface of the shell (8) and the outer housing for cooling of the cooling medium flow, the construction being arranged to enable a closed circulation (25,14,9,12,23) of the cooling medium flow.
8. A method for an electric machine construction comprising a stator space (9) defined by a shell (8) and end portions (6) at the either ends of the shell (8), wherein stator means and rotor means of the electric machine are disposed within said stator space, characterized in that cooling medium is drawn into the stator space (9) through at least one cooling medium inlet opening (14,34) in said shell (8) intermediate the ends of the rotor means (20) by means of suction caused by means (13) for providing the suction, said means (13) being provided at the vicinity of both end portions (6), and the cooling medium is removed at the vicinity of both ends portions (6) of the stator space (9).
9. A method according to claim 8, characterized in that the suction aided conduction of the cooling medium

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into the stator space (9), circulation within the stator space and removal (12) from the stator space occurs symmetrically relative to the electric machine construction (10).

10. A method according to claim 8 or 9,
c h a r a c t e r i z e d in that it further includes mounting of an apparatus (30) to be driven by the electric machine (10) directly to the end portion (6) of the electric machine construction, and utilizing the attachment means (5) integrated in the end portion (6) of the machine construction (10) in attaching the integrated apparatus assembly to a bed.

11. A method according to any of claims 8 to 10,
c h a r a c t e r i z e d in that it further includes intensifying the cooling medium flow by blower means.

12. A method according to any of claims 8 to 11,
c h a r a c t e r i z e d in that it further includes cooling of the cooling medium flow by heat exchanger means (24) provided within a space (23) between the outer surface of the shell (8) and the outer housing so as to enable a closed circulation (25,14,9,12,23) of the cooling medium flow.